

19980403.qrp v01\_n049.qrs.980403

Date: Fri, 3 Apr 1998 19:09:40 EST  
From: qrp-l@Lehigh.EDU  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: QRP-L digest 1049

QRP-L Digest 1049

Topics covered in this issue include:

- 1) [7457] Help - coax RG58 /U, 58 A/U or 58 C/U  
by Dana E Hager <dehager@ix.netcom.com>
- 2) [7458] Re(1): Elmer101: QSK in the SW40+  
by Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
- 3) [7459] RE: soldering gun?  
by Kevin Muenzler - WB5RUE <wb5rue@stic.net>
- 4) [7460] Re: soldering gun?  
by Hal Maney <maney@ridgefield-ct.com>
- 5) [7461] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
by "John J. McDonough" <jjmcd@mdn.net>
- 6) [7462] Re: F.S. QRP Rigs  
by k4zd@juno.com (Robert L Hanrahan)
- 7) [7463] 38S  
by Ed <edn4pk@VoyagerOnline.net>
- 8) [7464] Radio Shack Frequency Counter  
by Dave Sjolin <sjolin@swbell.net>
- 9) [7465] Re: DX question  
by Ed <edn4pk@VoyagerOnline.net>
- 10) [7466] WANTED: UNBUILT OHR 15 METER KIT  
by marion@montana.com
- 11) [7467] Re: WoW 1st qrp DX!!!  
by Ed <edn4pk@VoyagerOnline.net>
- 12) [7468] Re: Spirit of fellow Hams.  
by "George T. Baker" <w5yr@swbell.net>
- 13) [7469] RE: Elmer101: QSK in the SW40+  
by Bensondj <Bensondj@aol.com>
- 14) [7470] Fluke #85 RF probe update  
by ka7you@juno.com
- 15) [7471] Re: Noise  
by "Roger A. McCarty" <rmccarty@earthlink.net>
- 16) [7472] qrpp with 706  
by Tim Ahrens <tahrens@inetport.com>
- 17) [7473] Re: Re(1): Elmer101: QSK in the SW40+  
by Roger Braker <msebrakr@telepath.com>
- 18) [7474] Good rig kits  
by "David B. Whipple" <busmana@xmission.com>
- 19) [7475] Porterville CA

- by "Fred Ringwald" <fred@innocent.com>
- 20) [7476] Re:portable vertical antennas  
by wd3p@juno.com (Larry Cahoon)
- 21) [7477] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
by Ed Tanton <n4xy@att.net>
- 22) [7478] Re: soldering gun?  
by Phil <k6ls@prolynx.com>
- 23) [7479] Re: Noise  
by GERALDCUND <GERALDCUND@aol.com>
- 24) [7480] "Soldering guns", and soldering station on sale...  
by WD6BOR <WD6BOR@aol.com>
- 25) [7481] My soldering station changed my life !!  
by Conrad <radman@best.com>
- 26) [7482] Re:portable vertical antennas  
by "Kim Andersen" <ox3fv@greenet.gl>
- 27) [7483] Quarterly  
by K4NK <K4NK@aol.com>
- 28) [7484] W1 to Asia  
by Zack Lau <zlau@arrl.org>
- 29) [7485] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
by "John J. McDonough" <jjmcd@mdn.net>
- 30) [7486] FS Ten-Tec 405 "QRP" Amplifier  
by Barry Keating <barry.p.keating.1@nd.edu>
- 31) [7487] CIRCAD and web pages  
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 32) [7488] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
by Zack Lau <zlau@arrl.org>
- 33) [7489] Jack, KB1CW  
by mwattcpa@earthlink.net (Marty Watt)
- 34) [7490] Coax for End fed Antenna?  
by "James R. Duffey" <ji3m@maxwell.com>
- 35) [7491] Re: portable vertical antennas  
by Elliott Lawrence <edl@pacbell.net>
- 36) [7492] Trade  
by tom whalen <whalen@swcp.com>
- 37) [7493] Re: Spirit of fellow Hams.  
by Ed Loranger <we6w@qsl.net>
- 38) [7494] Re: Radio Shack Frequency Counter  
by William Wyatt <wbw95k@timon.acu.edu>
- 39) [7495] Dayton QRP banquet reservations top 140!  
by "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
- 40) [7496] Re: Radio Shack Frequency Counter  
by Rich Mulvey <mulveyr@mulveyr.roc.servtech.com>
- 41) [7497] Re: Elemer101: Schematic in PDF format  
by Andy Fox <foxes@theriver.com>
- 42) [7498] Slowing bug down  
by Ken Knecht <kenk@primenet.com>
- 43) [7499] K1EL Keyer Info

- by "Watson R Gabriel Jr" <wgabriel@duke-energy.com>
- 44) [7500] Second Announcement for the APRIL SPARTAN SPRINT  
by Russ Carpenter <russ@natworld.com>
- 45) [7501] Elmer101 Schizo-matic  
by gsurrency@juno.com (Gary L Surrency)
- 46) [7502] RE: Antenna Parts  
by Steve Miller <kg7pv@teleport.com>
- 47) [7503] 15M 2N2er  
by Steven Weber <kd1jv@moose.ncia.net>
- 48) [7504] Re: RS Frequency Counter Wanted  
by Steven Weber <kd1jv@moose.ncia.net>
- 49) [7505] 2N2222 Design, & O-scope and Frequency Counter  
by "Gary R. Hanson" <ghanson@uts.cc.utexas.edu>
- 50) [7506] Re: Elmer101 Schizo-matic  
by Bob Bayha <rbayha@ix.netcom.com>
- 51) [7507] 12.6 uH inductor  
by mcveyp@kingman.com
- 52) [7508] Great sell off.....  
by Walt Amos <waltk8cv@ameritech.net>
- 53) [7509] Ten-tec Model 1254 Receiver Kit  
by "Marshall Emm" <mgemm@mtechnologies.com>
- 54) [7510] Small Wonder 30-40  
by "McFly" <joseph.street@comdev.ca>
- 55) [7511] AADE  
by dave\_epps@juno.com
- 56) [7512] End fed half waves  
by "James R. Duffey" <ji3m@maxwell.com>
- 57) [7513] Re: qrpp with 706  
by Tim Ahrens <tahrens@inetport.com>
- 58) [7514] Re: Coax for End fed Antenna?  
by jeverhar@camden.lmco.com
- 59) [7515] Re: soldering gun?  
by Brian Chesire <BCChesire@worldnet.att.net>
- 60) [7516] CCD Antennae  
by KC5TJA <kc5tja@topaz.axisinternet.com>
- 61) [7517] Antenna Mod for Alinco DJ-S11/41T Transceiver  
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)
- 62) [7518] Think before you <quote  
by Mel Evans <MelEvansGM6JAG@compuserve.com>
- 63) [7519] Re: Think before you <quote  
by John Evans - N0HJ <jaevans@codenet.net>
- 64) [7520] 38 Special : And the winner is.....(Drum Roll.....)  
by Bruce Hopkins - KL7JAF <kl7jaf@eagle.ptialaska.net>
- 65) [7521] Signal generator question  
by mcveyp@kingman.com
- 66) [7522] HW-8 and supply 4 sale  
by W7LS <w7ls@blarg.net>
- 67) [7523] Stainless Hardware

by RangerSF5 <RangerSF5@aol.com>  
68) [7524] adding external antenna to small 2m ht's  
by W7LS <w7ls@blarg.net>  
69) [7525] NorCal 40A Field Test  
by aa5yx@juno.com (John F. Harper)  
70) [7526] Dan Hogan CHANGEof ADDRESS  
by "Dan Hogan" <dhhogan@concentric.net>  
71) [7527] Frequency counter  
by "Gary R. Hanson" <ghanson@uts.cc.utexas.edu>  
72) [7528] Re: Signal generator question  
by Ed Tanton <n4xy@att.net>

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Date: Thu, 02 Apr 1998 19:39:17 -0800  
From: Dana E Hager <dehager@ix.netcom.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7457] Help - coax RG58 /U, 58 A/U or 58 C/U  
Message-ID: <352459BC.5789@ix.netcom.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I am planing on installing an end-fed antenna at the house I am renting. It will be 25 feet above the ground, connected to a rainbow tuner and about 46 feet long running NW / SE (from the house to a tree). I would like to run the feed line (50') from a room on the first floor in the front of the house to the attic in the rear of the house. Should I spend the extra money on RG58 C/U or will RG 58 A/U be sufficient. I have read all about the numbers but what about pratical QRP operating?

Any help would be appreciated.

Thanks,

Dana E Hager  
Nazareth, PA  
dehager@ix.netcom.com

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Date: 02 Apr 1998 19:13:15 -0500  
From: Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>  
To: msebrakr@telepath.com  
Cc: qrp-l;;  
Subject: [7458] Re(1): Elmer101: QSK in the SW40+  
Message-ID: <1998Apr02.191315-0500@[130.113.234.7]>

In <3.0.1.16.19980402181227.3b2f1b38@telepath.com>, Roger Braker wrote:

D5 is between the key and the gate of Q1.

D6 is on the base of the RF final amp.

>[...] then how does the

>current out of R21 get through D5 to turn Q1 on, considering the way it is  
>oriented?

The key drags D5's cathode down to ground.

The key also drags R21 down to ground.

When the key is UP, R21 drags D5's cathode up to near +12v.

> Where does the 8 volts that appears between the gate and source  
>of Q1 come from? If it comes from R21, then won't it get grounded? If  
>this is not how it works then I must have misunderstood.

U4a's output is at +8v. So you have misunderstood. When the key is up, D5 is off (there's no current flowing thru it). It's anode is at +8v (set by U4a pin 1), but its cathode is up near +12v. So D5 is reverse-biased.

>And once 8 volts

>does get to Q1, why would this turn it off? Is that pinch off voltage?

Yes, that's it. With Q1's gate pulled up to +8v via R8, the FET looks like a small resistor (perhaps 100 ohms). But when you drag its gate down close to ground (via D5), its conducting channel is pinched-off. Here, its resistance (between source & drain) goes from about 100 ohms way up to many megohms.

>Also, about the sidetone. Is the TX signal from the TR switch converted  
>through the IF and audio mixers to get the sidetone? Isn't that kind of  
>hard on the chips??

Yes, the receiver is listening to the transmitter. It sure is a monster signal - compared to the puny received signals. But there's not enough power available from these chips to do damage. You simply wouldn't want to listen to the distorted, high-level audio that U4a pumps out. The mute gate cuts the amplitude WAY back, and then U4b cleans it up (attenuates audio harmonics) to give a pleasant tone.

Last question:-) I had always heard that you weren't

>supposed to key oscillators but that is what has been done with U5. Or is  
>that just for VFOs and XTAL oscillators don't count?

Good question. Notice that the VFO is NOT keyed - it runs continuously. But U5's Colpitts crystal oscillator goes on and off with every dit/dah. So shouldn't the transmitter be prone to chirp as this 4 MHz. oscillator powers up and down?

There are a few reasons why it doesn't.

- (1) It is a crystal oscillator, with excellent frequency stability.
- (2) It is low-power so that there's no heating problem.
- (3) U5 may possibly chirp a bit as it comes up, but by the time Q4, Q5 and Q6 wake up, the oscillator has stabilized.

-----  
Date: Thu, 2 Apr 1998 18:50:01 -0600  
From: Kevin Muenzler - WB5RUE <wb5rue@stic.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>, "'k6ls@prolynx.com'"  
<k6ls@prolynx.com>  
Subject: [7459] RE: soldering gun?  
Message-ID: <01BD5E68.24C5E280@SA5399-8-09.stic.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

On k6ls@prolynx.com, Phil[SMTP:k6ls@prolynx.com] wrote:  
> Anyone have any recommendations on a GOOD soldering gun?  
>  
> I have the Weller 100/140 watt job, but find that after a connector  
> or two, it don't work as good as it should.  
>

First -- you need to get GOOD elements. Radio Shack sells good solid copper elements for Weller irons. Second make sure that the nuts are VERY tight. But be careful not to twist off the post. They are made of nickle plated brass. What usually happens with these things is that the connection is not tight and after heating a few times they build up corrosion and loose the connection. You're looking at about 2 volts at more than 70 amps going through that little element. With that much current even a very small amount of corrosion will give you poor performance.

Kevin, WB5RUE

> I would like to find something in the 200 watt + range, I haven't  
> found one in any of the local stores.  
>  
> tnx,

> --  
> 73 de Phil, K6LS  
>  
> k6ls@qsl.net <or> k6ls@amsat.org  
> http://www.qsl.net/k6ls  
> http://www.prolynx.com/k6ls  
> DM79oq, Arapahoe County, Colorado  
> ITU zone 7, CQ zone 4  
> QRP-L #612 NorCal #824  
> CQC #471 ARCI #8866  
> WSWSS #148  
>  
>

-----  
Date: Thu, 02 Apr 1998 20:04:22 -0500  
From: Hal Maney <maney@ridgefield-ct.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7460] Re: soldering gun?  
Message-ID: <35243596.7FC0DC8F@ridgefield-ct.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Kevin Muenzler - WB5RUE wrote:

>  
> On k6ls@prolynx.com, Phil[SMTP:k6ls@prolynx.com] wrote:  
> > Anyone have any recommendations on a GOOD soldering gun?  
> >  
> > I have the Weller 100/140 watt job, but find that after a connector  
> > or two, it don't work as good as it should.  
> >  
>  
> First -- you need to get GOOD elements. Radio Shack sells good  
> solid copper elements for Weller irons.  
... snip ...

Good advice. As a teenager back in the '60's, I almost  
threw my first one away when it stopped after a couple of  
uses. Then I learned that you have to tighten the nuts just  
about every time you use it.

Anybody know where to get replacement light bulbs for those  
things? They never seem to last very long.

Hal

--

-----  
Harold D. Maney, K1HM  
maney@ridgefield-ct.com  
203-431-9329  
  
-----

Date: Thu, 2 Apr 1998 20:08:57 -0500  
From: "John J. McDonough" <jjmcd@mdn.net>  
To: <dehager@ix.netcom.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [7461] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
Message-ID: <199804030112.3931200@midland2.mdn.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

> From: Dana E Hager <dehager@ix.netcom.com>; owner-qrp-1@Lehigh.EDU  
> front of the house to the attic in the rear of the house. Should I spend  
> the extra money on RG58 C/U or will RG 58 A/U be sufficient. I have read

IMO, at HF, you won't see the difference. Might be an issue on 2 meters, but on HF, the loss in 50' of RG58 will be invisible. Now, if you were running a kilowatt....

72 de WB8RCR

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Date: Thu, 02 Apr 1998 16:12:56 EST  
From: k4zd@juno.com (Robert L Hanrahan)  
To: qrp-1@Lehigh.EDU  
Subject: [7462] Re: F.S. QRP Rigs  
Message-ID: <19980402.161545.7663.0.k4zd@juno.com>

QRP'ers,

Have decided to part company with a few of my many splendid and duplicate QRP rigs. I love to build them and need to sell a few to keep my rig population in check. Therefore, consider the following for your shack. All rigs are a



"10" and

in pristine working condition. Manual and power cord supplied with each rig.

1. NN1G-30 mtr xcvr in factory case-\$50.00 pp
2. OHR100-15 mtr xcvr-\$83.75 pp
3. OHR400-80,40,30,20 mtr xcvr w/keyer-\$268.00 pp
4. OHR Explorer II-30 mtr xcvr(KK5MM's rig)-\$83.75 pp

Pleased to e-mail specifications on each rig upon request.

72's- Bob Hanrahan-K4ZD

E-mail: k4zd@juno.com

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You don't need to buy Internet access to use free Internet e-mail.  
Get completely free e-mail from Juno at <http://www.juno.com>  
Or call Juno at (800) 654-JUNO [654-5866]

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Date: Thu, 02 Apr 1998 20:55:28 -0500  
From: Ed <edn4pk@VoyagerOnline.net>  
To: QRP <qrp-1@Lehigh.EDU>  
Subject: [7463] 38S  
Message-ID: <35244190.4DBA05E6@VoyagerOnline.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I just need to tell someone (hi). I recently was able to obtain a 38s. It arrived via mailman on Tuesday and I eagerly opened the box when I got home from work. Hhhhmm kinda small board and packaged in a cookie tin ?? Is this thing really gonna work ? And of course none of my "standard" plugs match. After some quick rigging I sent a packet to my friend Tony W4FOA..We checked it out on 10.116 an it did receive and the tx was clean with no chirps...just a little shift...well we can live with that. Sent a quick 2x2 CQ.

Much to my amazement VE2MIQ answered and gave me a 559. Now is that great or what. You all hafta remember that after 20 years as a ham this is my first "real" Qrp rig. Unless of course you count the HW16 and a few crystals..But that is another story. Just want to let everyone know that if this keeps up I will be another Qrp convert. What a thrill, almost as good as vaniller ice cream an a root beer. Now how do I fix that extremely loud sidetone....???

Thanks for the width..

Ed N4PK (ex ka3aws-kb3hb)

CW from beautiful downtown Chickamauga, Ga.

P.S. How do you slow down a bug ?? You dont..you get on the rig and work as many Q's as you can with it and your copi speed will soon match the bug....this advice from my Elmer, Frank Grace W3NR

-----  
Date: Thu, 02 Apr 1998 19:58:22 -0600  
From: Dave Sjolin <sjolin@swbell.net>  
To: Qrp-l Reflector <qrp-l@Lehigh.EDU>  
Subject: [7464] Radio Shack Frequency Counter  
Message-ID: <3524423E.56726315@swbell.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Just noticed in latest flyer, that Radio Shack is offering their frequency counter for \$20 off... \$79.99.

Not as good as the sale on the earlier model but still better than full retail. FYI

73 de Dave, N0IT

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Date: Thu, 02 Apr 1998 21:08:10 -0500  
From: Ed <edn4pk@VoyagerOnline.net>  
To: csnyder@nextdim.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7465] Re: DX question  
Message-ID: <3524448A.3549B1BE@VoyagerOnline.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The best all around antenna for 40 meters is a loop. I use a Delta loop fed 1/4 wave from apex with a 75 ohm quarter wave transformer and rg8x as the rest of the feedline to the rig. The apex is at 60' and works very well. You could of course choose to feed it with open wire feed and use a tuner if you want. Total length is about 142'. As an alternative you could go with a half square which is basically an upside down "U". It also works very well in a DX environment. Either

of these antennas are relatively inexpensive to build.  
72/73..GL..Ed N4PK

-----  
Date: Thu, 2 Apr 1998 19:54:11 -0700 (MST)  
From: marion@montana.com  
To: qrp-1@Lehigh.EDU  
Subject: [7466] WANTED: UNBUILT OHR 15 METER KIT  
Message-ID: <199804030254.TAA25078@paw.montana.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Anyone out there have a unbuilt OHR 15mtr kit they would like to  
sell? Roy, AB7CE

-----  
Date: Thu, 02 Apr 1998 21:10:12 -0500  
From: Ed <edn4pk@VoyagerOnline.net>  
To: fielden@utkux.utcc.utk.edu  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [7467] Re: WoW 1st qrp DX!!!  
Message-ID: <35244504.968237DE@VoyagerOnline.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Jim, from an old "pro"...C00L  
Ed N4PK  
Congrats...good try...

-----  
Date: Thu, 02 Apr 1998 20:10:33 -0600  
From: "George T. Baker" <w5yr@swbell.net>  
To: we6w@qsl.net  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [7468] Re: Spirit of fellow Hams.  
Message-ID: <35244519.7156C37C@swbell.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Ed, you can make one in a few hours (tops) with some slide switches, resistors and a metal box with some PC board internal shielding. Check almost any recent Handbook for the design. I made one nearly 30 years ago and it still works! Good investment . . .

--

72/73, George  
Amateur Radio W5YR (since 1946)  
QRP-L #1373 QRP ARCI #9583  
AutoPOWER Systems  
Fairview, TX (30 Mi. N. of Dallas)

> OBQRP: Does anyone have a step attenuator with 10dB steps they  
> wish to part with? I want to try some microwatting and only have  
> a 10 dB attenuator with 1 dB steps. Using the more accurate 1 Watt  
> marking on the wattmeter then stepping down would be more accurate  
> power reference than guestimating 5 milliwatts output one beard hair  
> from the '0 Watts' on the scale.

>

> Possible trade?

> -Ed

> --

> 72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR  
> <http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

-----  
Date: Thu, 2 Apr 1998 21:17:42 EST  
From: Bensondj <Bensondj@aol.com>  
To: cfishman@pica.army.mil  
Cc: qrp-l@Lehigh.EDU  
Subject: [7469] RE: Elmer101: QSK in the SW40+  
Message-ID: <429e2dc7.352446c9@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

on Thu, 2 Apr 1998, Clark Fishman,  
<cfishman@pica.army.mil> wrote:

>>Subject: [7433] RE: Elmer101: QSK in the SW40+

>>The four diodes in the antenna circuit are used in a very clever way.  
>>Capacitor C40 (47 pF) and inductor RFC3 (10 uH) are series resonant at  
>>about 7 MHz and each has a reactance of about 480 ohms at 7  
>>MHz....putting the limiting diodes between the L and C should be very  
>>effective because they are operating on a high (480 verses 50 ohm)

>>impedance line...nice work Dave

Thanks, but this circuit was popularized years ago by Roy Llewelyn, W7EL.

There are several things at work here not obvious at first glance. As Clark points out, the point at the junction of the L and C is at a high impedance. The voltage gain here is considerable (it's equal to the network's loaded 'Q'). On 40M in particular, and depending on conditions, there may well be a volt pk-pk of RF at this point- in the receive mode! There are 2 series diode-pairs instead of the usual single pair; this improves the receiver intermod (SWBC interference) performance by raising the conduction threshold.

Isn't there too much transmitter signal going into the receiver?

Nope! The diodes limit the transmitted signal at the L-C junction to about 3 volts peak-to-peak. Remember the bit about the voltage gain? It now works to our advantage- the voltage appearing at the receiver input is a half-volt or less. This is still a huge signal by receiver standards, but it's not sufficient to cause any damage.

// Wonderful job, Elmers- good stuff!

73, Dave Benson- NN1G

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Date: Thu, 02 Apr 1998 19:16:16 EST  
From: ka7you@juno.com  
To: QRP-L@Lehigh.EDU  
Subject: [7470] Fluke #85 RF probe update  
Message-ID: <19980402.162922.18191.9.KA7YOU@juno.com>

I just spoke with Radar Electric this morning (206) 282-2511, and they still have a dozen or so of the Fluke #85 RF probes available. If you call, ask for the "hardware department" to get to that area quickly.

No financial connection here, just a regular stop.

7 3,

Rod Johnson KA7YOU from CN97ak near Issaquah, Wa. 160M thru 1296 MHz (3456MHz still in the wings)

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-----  
Date: Thu, 2 Apr 1998 18:23:25 -0800  
From: "Roger A. McCarty" <rmccarty@earthlink.net>  
To: <hhurst@delaware.infi.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [7471] Re: Noise  
Message-ID: <01bd5ea7\$7af26fe0\$9aa9d9cf@accurate-1>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

ALL RIGHT HARRY!

Welcome to the best group of individuals in Ham Radio, the CW/QRP/Homebrew crowd.

73/72  
Roger KD6CC

-----Original Message-----

From: Harry Hurst <hhurst@delaware.infi.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Date: Thursday, April 02, 1998 10:27 AM  
Subject: Noise

>After 20 perfectly happy years of inactivity, I found this list. Now I  
>gotta get back on again! QRP and mostly homebrew of course. So...  
>  
>I built one of those Ramsey mini-receivers to get started. Yup, that LM386  
>is as noisy as a Heathkit Twoer! Yup, it drifts all over the band too.  
>But, it was cheap, arrived in two days, and was working after a fashion, in  
>an hour.  
>So far, I have mounted the board in an old printer switch box, and got the  
>tuning range down to 7000 - 7090. The drift isn't too bad after the rig is  
>on for a minute or so. Added an output transformer on the 386, and feed  
>the hi-z output to a speaker amp.  
>  
>What I want to do is add a low noise filter and preamp to feed the '386  
>with the 386 gain cranked down to 20 or less. Can someone recommend a  
>low-noise  
>version of an LM741? Would also like to replace the L0 caps with  
>polystyrene caps. Who sells 'em? Didn't see them in Mouser, Digi-Key or  
>Tech America catalogs.

>  
>I don't which sucks more, my rusty cw, or the radio. Anyway, I am sticking  
>with it, listening every day, and slowly getting my speed back. I could  
>drive over to Ham Radio Outlet and buy a ricebox today, but somehow it  
>wouldn't be as much fun!  
>  
>  
>\* \* \* \* \*  
>Amateur Radio - WA3PTG  
>QRP-L #1464  
>Wilmington DE  
>\* \* \* \* \*  
>  
>  
>  
>

-----  
Date: Thu, 02 Apr 1998 21:33:46 -0600  
From: Tim Ahrens <tahrens@inetport.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7472] qrpp with 706  
Message-ID: <3524589A.388099FC@inetport.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Thanks to Bob & Marty - duh, guess I should'a thought of that!

thanks!

Tim W5FN

-----  
Date: Thu, 02 Apr 1998 22:28:48  
From: Roger Braker <msebrakr@telepath.com>  
To: leinwebe@mcmail.CIS.McMaster.CA  
Cc: qrp-l@Lehigh.EDU  
Subject: [7473] Re: Re(1): Elmer101: QSK in the SW40+  
Message-ID: <3.0.1.16.19980402222848.3cbf3e64@telepath.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Thanks Glen. Clears it up a lot. So pinch off voltage is when, if you are lowering the base voltage, the point when the base or gate stops turning the transistor on because it does not have enough voltage? Thanks again for all the help.

-----  
Date: Thu, 02 Apr 1998 20:09:48 -0700  
From: "David B. Whipple" <busmana@xmission.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7474] Good rig kits  
Message-ID: <352452FC.5A474854@xmission.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Within the next couple of months, I would like to get a new radio kit. I know that in the past people have requested which might be the better kit for them. What I would like to do is to make a compilation of all of your "reviews" and put them on one web page. I know there is a set of reviews on the QRP-L page and many people have listed web pages about their radios, I would like to put all of these together in one place.

If you have listed a page, I will gladly link to your page, or even include a copy of your page (it is your choice). I'll also publish any email reviews sent to me. Pictures would also be appreciated. Naturally, appropriate credit would be given for each reviewer. I would think we would be able to have several different opinions on each major radio. I want to focus this page project on radios that can currently be purchased from either clubs or manufacturers. I haven't seen a page with collections of several different reviews.

My time is somewhat limited, so it may take me a while to get a finished project on the web. I'll publish the URL to this when I have something presentable.

Thanks in advance for your feedback. Any thoughts and ideas are welcome. Just send them to me (not the list.)

David Whipple  
KC7MJR  
busmana@xmission.com



-----  
Date: Thu, 2 Apr 1998 21:58:23 -0600  
From: "Fred Ringwald" <fred@innocent.com>  
To: "QRPL - Post to the List" <qrp-l@Lehigh.EDU>  
Subject: [7475] Porterville CA  
Message-ID: <00b601bd5eb4\$c03a1c80\$3a01e3d0@labette>

Hello,

I have been lurking for a couple of years, and I thought I'd ask the group the following:

My brother-in-law is an elementary school teacher. He is not a ham, and is looking for any ham in or near Porterville, CA who would like to come to his elementary school classroom to give his class a demonstration of morse code.

If I weren't in Kansas, I'd go give the demonstration -- take my straight key and my paddles and keyer -- let the kids try the paddle and key to see what it is like, etc. -- and talk with them about morse code and why we are all still interested in using this form of communication.

Anyway, please let me know if you are in or near Porterville, and would like to take on this civics project. It also might light a fire for some young future ham!

Thanks for listening.

73s

Fred Ringwald, ABOAE  
fred@innocent.com

-----  
Date: Fri, 3 Apr 1998 00:28:08 +0100  
From: wd3p@juno.com (Larry Cahoon)  
To: qrp-l@Lehigh.EDU  
Subject: [7476] Re:portable vertical antennas  
Message-ID: <19980403.002810.3734.1.wd3p@juno.com>

I've tried two type of hambrew verts. for single band use on 20 Meters.  
Both have worked well.

The first used short tent poles. Just put about five three foot sections together and added a mobile whip on the end; then added three radials. The measurements get a bit messed up. Downsizing the diameter of vert. element makes a big difference in length. Where you might think 15 foot of tent poles 1.5 inches in diameter would only need a foot or two more, in practice I think I needed more like 4 or 5 feet of whip ( at perhaps 1/16 inch in diameter). If you look at the theory this is to be expected. This one was set up on roof deck of a cottage on Hatteras Island (NC) durring a summer vacation. The three radials were run across the deck. No tuner was needed, just adjusting the length of the vertical element made for a perfect 1:1 match. I just attached the whip with a hose clamp to make it easily adjustable. I ran this one at 100 watts (sri - pre QRP days). First QSO was a F05 - French Polynesia.

The second was a more recent homebrew. It followed the same design and the whole antenna fits in a fanny pack. It uses four wires. The vertical element and three radials. Each has a clip on the end to attach to the coax. The vertical clips to the center conductor the three radials to the braid. I used RG-8X - its only about 20 ft. long and is just rolled and put into the fanny pack with the rest of the antenna. I take along some nylon string, tie a rock to it throw it over a tree limb and pull the vertical element up with it. The radials are just laid on the ground. The wires were cut to give a 1:1 SWR when in my front yard. The SWR in the field will vary a bit due to ground conditions and the other factors, but usually not enough to worry about. This one has made it from MD to AZ on less then 1 Watt so it works.

I still would prefer a dipole but these require less coax, at least if you are going to get the dipole us to a respectable height. Also only needs one tree. It could be scaled to 30M or 40M. Even on 40M you only need to get a limb about 35 feet up for the vertical element. I think I can do that without my slingshot

73 de Larry.....WD3P

-----  
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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Thu, 02 Apr 1998 23:26:14 -0500  
From: Ed Tanton <n4xy@att.net>  
To: dehager@ix.netcom.com

Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [7477] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
Message-ID: <3.0.1.32.19980402232614.00b22750@postoffice.worldnet.att.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hi Dana... Remember: the definition of 1 dB is the least amount of change-or difference-in a signal/sound/whatever some ideal/average person can discern. I would imagine the difference between the two cables you are talking about, at HF frequencies, is next to nothing... probably in 1/10ths of a dB for the lengths you are talking about.

If you're going to spend some extra money on anything get RG-213... it won't result in NOTICEABLY lower losses, but it is sturdier-especially: if you have many squirrels in the area, get something like Bury-Flex that is somewhat self-sealing so the little sonufaguns' claw holes will self-seal (no hope for gnawing!) The '213 / RG-8 style will have somewhat lower losses... but not so low that you would be able to notice at HF, for such a relatively short run.

Personally, I NEVER use foam coax... the ease with which the stuff messes up when being soldered just \*\* AIN'T \*\* worth it to me for a couple of tenths of a dB that nobody can hear in the first place. Bottom line: for this distance and power level, plain old RG-58 A/U (or RG-8X) will be fine. I'd get '213 or Bury-Flex, but that's me.

And get good silver-teflon connectors... and Coax Seal. Why go to all that trouble to put up a nice antenna, then have the coax ruined by water leaching into the braid. By the way, while we're on Coax Seal, two things: 1) use the real thing... some available products look like it, but dry out/etc.; 2) Put a layer of (typically) black plastic electrical tape tightly (stretch it as you go) around the connector where you are going to use the Coax Seal. It will facilitate removing the Coax Seal later on (you can then slice through it and remove the tape, thus removing the coax seal on top of it.) Cover the tape completely and smoothly with the Coax Seal. Ought to last for years. And NO non-electronic-grade Silastic! If it smells, and doesn't say "electronic grade" DON'T USE IT. Even "electrical grade" can be corrosive. The 3-M paint-on tape stuff is OK, but doesn't hold up well enough in my book.

Finally, if you have ANY questions, ask! I really do believe in that old maxim about unasked questions being the only stupid ones.

Good Luck, and let me know what you decide, and how it comes out!

Ed Tanton N4XY  
189 Pioneer Trail  
Marietta, GA 30068-3466

EMAIL: n4xy@att.net

TEL: (770)579-3933 V/MBX/FAX

-----  
INTERESTS: QRP BoatAnchors Test Equipment Photography  
CW: 99.9% Mercury Paddle # 0214 QRP to 150W: 95%

~~~~~  
"Think you can, think you can't: either way you're right!" Henry Ford  
~~~~~

-----  
Date: Thu, 02 Apr 1998 21:42:34 -0700  
From: Phil <k6ls@prolynx.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7478] Re: soldering gun?  
Message-ID: <352468BA.31654324@prolynx.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Well I must be a glutton for punishment. When I check my mail, I cringe at the thought of another "Re: soldering gun?" message rolling in. So far I have received about 40 replies! :-)  
I would like to thank you all that responded.

Here is the jest of what was sent my way:

1. Tighten the 'screws' that hold the tip in place- OFTEN (loosen then tighten)
2. The particular model I have should work w/o a problem, taken item #1.
3. There are some higher wattage ones around, check some of the better hardware stores and Sears.
4. The 40+ watt pencil irons should work too, but you have to let them warm up a bit before use (they hold their heat longer)
5. They don't make 'em like they used to.

Thanks again, 73 de Phil K6ls  
-----

Date: Fri, 3 Apr 1998 00:30:29 EST  
From: GERALDCUND <GERALDCUND@aol.com>  
To: hhurst@delaware.infi.net  
Cc: qrp-1@Lehigh.EDU  
Subject: [7479] Re: Noise  
Message-ID: <7ae3a090.352473f7@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Mouser carries Polystyrene Caps in radial and axial leads. I've bought several from them for the NN1G 40-40 (QST Nov 94) Also Dan's Small Parts has some listed (probably axial leads)

Mouser Electronics  
1- (800)- 346-6873  
<http://www.mouser.com>

Dan's Small Parts & Kits  
1-406-258-2782  
Online Catalog  
<http://www.fix.net/dans.html>

Gerald,KE4LIA

-----  
Date: Fri, 3 Apr 1998 00:48:08 EST  
From: WD6BOR <WD6BOR@aol.com>  
To: qrp-1@Lehigh.EDU  
Subject: [7480] "Soldering guns", and soldering station on sale...  
Message-ID: <9e4d8bb4.3524781a@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Gang,

I just updated the lab at school with Tenma temperature controlled soldering stations on sale now through May 1 at \$69.95. These units are regularly \$119.00 and feature a digital set and read-out display and continuously variable temperature control with a good degree of stability and thermal reserve. The unit comes with a pointed tip and other tips run about \$3 each with replacement irons costing about \$12.

I bought one of these several months ago at \$79.95 and have had very good luck using it. I've been able to turn the temperature up and solder coax fittings

and turn it down to solder surface mount boards. My only comment might be that the transformer growls at you (rubber feet might take care of the vibration transmitted to the bench through the plastic housing) while you sit there working late into the night.

The soldering station is part number 21-1590 from MCM Electronics at 1-800-543-4330, and at [www.mcmelectronics.com](http://www.mcmelectronics.com). The sale ad is in the April '98 issue of Electronics Now, page 83. You might ask for a catalog so you can order a selection of tips and maybe a spare iron at the same time to avoid paying shipping charges on multiple orders. Make sure you get the order in before May 1 for the sale pricing though.

I loved my old Ungar 40 watt pencil iron and used it to build more than a few projects but it is now riding around in my tool box on my truck. The soldering station has me spoiled.

Good luck and 72,

Darrel, WD6BOR

-----  
Date: Fri, 3 Apr 1998 00:21:19 -0800  
From: Conrad <[radman@best.com](mailto:radman@best.com)>  
To: "'qrp-1@Lehigh.EDU'" <[qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)>  
Subject: [7481] My soldering station changed my life !!  
Message-ID: <01BD5E96.6D18F760@radman.vip.best.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: quoted-printable

Friends,

All the recent talk about soldering irons, guns, pencils, propane =  
torches, arc welders, flame throwers et al... caused me to reminisce. =  
Before I bought my soldering station (Weller EC-1002) -- I managed to =  
get by. But, the day I installed that soldering station on my bench... =  
WOW... my life was forever changed ! I ascended to a higher level of =  
precision soldering that I simply couldn't attain with plain old \$15 =  
pencils. If you love kit-building -- a soldering station could change =  
your life, too!

That's enough religion for one night, eh?

72 - Conrad -- nn6cw.

-----  
Date: Fri, 3 Apr 1998 11:07:16 +0100  
From: "Kim Andersen" <ox3fv@greenet.gl>  
To: "=?ISO-8859-1?Q?QRP-L\_=28INDL=C6G=29?=" <qrp-l@Lehigh.EDU>  
Subject: [7482] Re:portable vertical antennas  
Message-ID: <7717ACF74E7.AADD0D@mail.greenet.gl>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

Hi

I use a 30 ft fiberglass rod as a antenna mast. It is telescopic, and is about 5 feet when packed together.

I have used many antennas with it: 40m dipole, 40m deltalooop, and now a 2 x 5.30m vertical dipole.

As you can see from the call I am living on Greenland, and up here we can have some pretty bad weather. When I was stationed up at Thule Air Base, this "fishingrod" survived 180 Knots of wind!!.

I think this is the perfect antenna mast for hams with the need for a good and simple antennasystem. It is good for /p use, and even for a "Home antenna". I use it as both.

At the moment I use 2 x 5,30m vertical dipole fed with open feeder. It works very well from 30m - 10m. On 40m it works ok, but is by no means perfect.

Due to big winds I use this setup in wintertime, so I wont have to put down the antenna every time we have a storm.

The rest of the year I use a 40m deltalooop also fed with open feeder. The feedpoint is only 6 feet off the ground, but it works very well. I use it as a loop on 40m - 10m, and have made a system, so I can devide it on the middle, and work 80m with it also. It looks like a very sick dipole!!!!, but it works!!

In the summertime I use it on trips in the area, where I use it together with my INDEX QRP+ rig. The rest of the year I mostly use QRO. By the way: I just got my INDEX back from repare. The mixer was burned due to a poor protection in the construction. So guess that I will be QRP for a while now!!.

The mast is made in Germany, but I guess you have it in the states also??.

Before I started using this antennasystem, I used a GAP challenger antenna for 80m - 10m about 10m long. I used 24 guy lines on it!!!!. But after one very stormy night it was only 5m high!!.

My point is that the mast do not need any guy lines, and if winds get to high it only takes seconds to get it down. I mount my mast in a metaltube with a larger diameter. I have abt 1 feet of the mast inside this tube.

Hope this can be of help to you when going /p.

73 de Kim/OX3FV

-----  
Date: Fri, 3 Apr 1998 06:34:06 EST  
From: K4NK <K4NK@aol.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7483] Quarterly  
Message-ID: <808135aa.3524c930@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

I recieved my Quarterly a few days ago. I must say it is the best ever. When I was president of ARCI I never dreamed we could have such a publication.OK Mr. Pres. ...I vote to give the staff a raise.

Les K4NK

QRP ARCI Historian and Past Pres.

-----  
Date: Fri, 03 Apr 1998 07:32:13 -0500  
From: Zack Lau <zlau@arrl.org>  
To: qrp-l@Lehigh.EDU  
Subject: [7484] W1 to Asia  
Message-ID: <3524D6CD.2CF7@arrl.org>  
Mime-Version: 1.0



Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Nice Asian signals--fluttery but strong on 20M  
Just got a 559 from BA4TB @1224Z--Zack W1VT

-----  
Date: Fri, 3 Apr 1998 08:22:50 -0500  
From: "John J. McDonough" <jjmcd@mdn.net>  
To: <n4xy@att.net>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [7485] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
Message-ID: <199804031321.4017800@midland2.mdn.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

> From: Ed Tanton <n4xy@att.net>; owner-qrp-l@Lehigh.EDU  
>  
> Personally, I NEVER use foam coax... the ease with which the stuff messes

Besides being a bear to solder, foam coax soaks up the water. A little defect in your seal and the water gets in there, make the losses go through the ceiling.

Another thing about RG8 - in case you should happen to find some cheap. Nowadays it seems like RG8 is a lot more rigid than it used to be. Unless you put a pigtail of RG58 on it, it will hold your QRP rig up off the operating table. This didn't used to be a problem when any rig weighed 50 pounds, but these days, especially with these QRP rigs, the cable looks like a steel bar compared to the rig!

gud luck es gud dx  
72 de WB8RCR

-----  
Date: Fri, 3 Apr 1998 09:07:59 -0500  
From: Barry Keating <barry.p.keating.1@nd.edu>  
To: qrp-l@Lehigh.EDU  
Subject: [7486] FS Ten-Tec 405 "QRP" Amplifier  
Message-ID: <v03007802b14a9cd3a2d2@[129.74.86.74]>  
Mime-Version: 1.0  
Content-Type: text/enriched; charset="us-ascii"

<fontfamily><param>Times</param><bigger><bigger>For sale:

## Ten-Tec Model 405 Linear Amplifier

Sometimes referred to as a "QRP Amplifier" since it is commonly used with very low power radios for a moderate boost. Often used with Ten-Tec Argonaut Series Radios.

Completely solid state linear amplifier.

RF Power Output:	50 Watts
Drive required:	1 Watt
Power required:	12-14 VDC @ 8a
Output impedance:	50-75 Ohms unbalanced
Frequency coverage:	80 through 10 meters (including WARC bands) continuous
Cabinet dimensions:	H.W.D. 4.5" X 7" X 7.5"
Construction:	Case, Aluminum: Side-panels, Cycolac
Net weight:	2.5 lbs.

Any matched antenna presenting 50-75 Ohms will work satisfactorily. The connector is a PL259.

Includes 10 amp fast blow fuse (which has never been blown).

RF power out and SWR are continually monitored with two separate front-facing lighted meters. Two rugged output transistors deliver 50 watts to the antenna, and are virtually immune to shorted, open or high SWR loads. It will provide a lifetime of top performance.

With original box.

Includes original manual.

\$250 + shipping

keating.1@nd.edu</bigger></bigger></fontfamily>

-----  
Date: Fri, 3 Apr 1998 14:13:11 GMT  
From: adams@chuck.dallas.sgi.com (Chuck Adams)  
To: qrp-1@Lehigh.EDU  
Subject: [7487] CIRCAD and web pages  
Message-ID: <199804031413.0AA12535@chuck.dallas.sgi.com>

Gang,

Someone sent me a file for CIRCAD with a new SCAF filter that they are going to kit. Unfortunately at the present time their file seems incompatable with version 3.68, but that's for later today to be worked out.

But I discovered something else in the process that might be of interest to the group. I noted in playing with CIRCAD that you can plot to a file in HPGL format. Well, I can do HPGL to PostScript and from there to .GIF, .JPG, and .PDF formats. This might be a way to get a lot more stuff available on the web, though most will still as I do hardcopy via the newsletters.

The .HPG files are large. For example the 8044 Curtis keyer sample file schematic, when converted to .HPG format takes over 2MB of disk space before compression.

FYI

Chuck Adams K5FO Dallas,TX CP-60  
<http://reality.sgi.com/adams> adams@sgi.com

-----  
Date: Fri, 03 Apr 1998 09:30:29 -0500  
From: Zack Lau <zlau@arrl.org>  
To: qrp-l@Lehigh.EDU  
Subject: [7488] Re: Help - coax RG58 /U, 58 A/U or 58 C/U  
Message-ID: <3524F285.7987@arrl.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I thought the definition of a Bel was the base 10 log of a power ratio. Might it change in the future to some other base? After all, the average person today is taller than in the past--Zack W1VT

-----  
Date: Fri, 03 Apr 1998 15:15:58 GMT  
From: mwattcpa@earthlink.net (Marty Watt)  
To: qrp-l@Lehigh.EDU  
Subject: [7489] Jack, KB1CW  
Message-ID: <3524fcde.54598588@mail.earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: quoted-printable

Jack, KB1CW:

I've sent you two e-mails privately this week, and haven't heard from = you.

Please contact me. The reply to address in your post to me doesn't = appear to work!

--

72 es 73 de Marty, KM7W

-----  
=46ranklin, Tennessee <http://home.earthlink.net/~mwattcpa> =  
=20  
NorCal #2031 -- ARCI #7514 -- QRP-L #0953 -- AK/QRP #098 -- Grid EM65

Date: Fri, 3 Apr 1998 08:50:42 -0700  
From: "James R. Duffey" <ji3m@maxwell.com>  
To: dehager@ix.netcom.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [7490] Coax for End fed Antenna?  
Message-ID: <v0300780bb14aac2d2d3f@[192.31.66.158]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Dana - Could you elaborate on the feed configuration of your "end fed antenna"? Also - what bands do you intend to use it on?

"I am planing on installing an end-fed antenna at the house I am renting. It will be 25 feet above the ground, connected to a rainbow tuner and about 46 feet long running NW / SE (from the house to a tree). I would like to run the feed line (50') from a room on the first floor in the front of the house to the attic in the rear of the house. Should I spend the extra money on RG58 C/U or will RG 58 A/U be sufficient."

I am concerned that a coax feed might not be appropriate for this situation. Is the tuner located at the antenna end of the feedline, or at the rig end of the feedline? What is the coax braid (outer conductor) going to be connected to at the antenna end? If this is not terminated "carefully" the outer conductor will surely radiate like mad.

Locating the tuner at the antenna end of the feedline is the best choice, but probably most inconvenient. Use a "counterpoise" consisting of quarter wavelength wires tied to the tuner case and you should be ok. This means going up into the attic whenever you need to change tuner settings though.

I don't recommend feeding the antenna directly with coax and locating the tuner at the shack. If you must do this, you should probably rethink your situation. You may wish to continue the wire antenna over the house and down to the front room, instead of using the feedline through the attic. As long as you can keep the wire a foot or so off the roof you should be OK. Then connect it to the tuner and rig, making a 96 ft long wire. Use the counterpoise as described above. Ground when not in use.

A simple dipole is another alternate if you can find room for the other leg. You can bend a dipole around considerably and still have it work OK. It doesn't have to look like the ones in a text book. Is a horizontal loop possible? They are good multiband performers. An off center fed "K5FO Adams Special" might also be a good choice. Use 66 feet of wire fed at 22 feet from one end with 300 Ohm twin lead and a tuner. I hesitate to recommend this as the feedline will radiate, but it has worked well for many.

I hope that this helps. Let us know how your antenna works out. There is nothing more frustrating than trying to work with a poorly performing antenna. - Duffey KK6MC/5

James R. Duffey <jr3m@maxwell.com> (505) 764-3143  
Maxwell Technologies Inc. http://www.maxwell.com/  
2501 Yale Blvd SE Suite 300  
Albuquerque, NM 87106-4200

-----  
Date: Fri, 03 Apr 1998 07:46:02 -0800  
From: Elliott Lawrence <edl@pacbell.net>  
To: ox3fv@greenet.net  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [7491] Re: portable vertical antennas  
Message-ID: <3525043A.7383@pacbell.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I saw the telescoping fiberglass mast last fall at the radio rally in Leischester, England. It really was neat and I thought about buying one and carrying on with my hand luggage. They were asking about 50 pounds/\$80US. Decided that I would not drag it around. It is made by some DLs.

They said they would be at Dayton this year. Unfortunately I won't be attending. Look for it. Wish I had bought one! Hope they decide to market it in the US.

72  
Elliott WA6TLA

Kim Andersen wrote:

>  
> Hi  
>  
> I use a 30 ft fiberglass rod as a antenna mast. It is telescopic, and is  
> about 5 feet when packed together.  
>  
> I have used many antennas with it: 40m dipole, 40m deltalloop, and now a 2 x

> 5.30m vertical dipole.  
>  
> As you can see from the call I am living on Greenland, and up here we can  
> have some pretty bad weather. When I was stationed up at Thule Air Base,  
> this "fishingrod" survived 180 Knots of wind!!.  
>  
> I think this is the perfect antenna mast for hams with the need for a good  
> and simple antennasystem. It is good for /p use, and even for a "Home  
> antenna". I use it as both.  
>  
> At the moment I use 2 x 5,30m vertical dipole fed with open feeder. It  
> works very well from 30m - 10m. On 40m it works ok, but is by no means  
> perfect.  
>  
> Due to big winds I use this setup in wintertime, so I wont have to put down  
> the antenna every time we have a storm.  
>  
> The rest of the year I use a 40m deltalooop also fed with open feeder. The  
> feedpoint is only 6 feet off the ground, but it works very well. I use it  
> as a loop on 40m - 10m, and have made a system, so I can devide it on the  
> middle, and work 80m with it also. It looks like a very sick dipole!!!!!!,  
> but it works!!  
>  
> In the summertime I use it on trips in the area, where I use it together  
> with my INDEX QRP+ rig. The rest of the year I mostly use QRO. By the way:  
> I just got my INDEX back from repare. The mixer was burned due to a poor  
> protection in the construction. So guess that I will be QRP for a while  
> now!!.  
>  
> The mast is made in Germany, but I guess you have it in the states also??.  
>  
> Before I started using this antennasystem, I used a GAP challenger antenna  
> for 80m - 10m about 10m long. I used 24 guy lines on it!!!!. But after one  
> very stormy night it was only 5m high!!.  
>  
> My point is that the mast do not need any guy lines, and if winds get to  
> high it only takes seconds to get it down. I mount my mast in a metaltube  
> with a larger diameter. I have abt 1 feet of the mast inside this tube.  
>  
> Hope this can be of help to you when going /p.  
>  
> 73 de Kim/OX3FV

-----  
Date: Fri, 03 Apr 1998 08:46:10 -0700  
From: tom whalen <whalen@swcp.com>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7492] Trade  
Message-ID: <35250442.6B61@swcp.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hello QRPers!

Want to trade my modified Muzuho 40m ssb/cw rig for a similar rig for 10 meters. Either a Muzuho or an AEA rig.

I also have a OHR Spirit(with built in keyer) for 40 meters. The rig is a 9 bracket, but is a little big for backpacking. Will consider trading for an unbuilt kit for 40 meters like a Emtech,OHR, or GM series.

Thank you, 72 Tom WB5QYT

-----  
Date: Fri, 03 Apr 1998 15:47:39 +0000  
From: Ed Loranger <we6w@qsl.net>  
To: w5yr@swbell.net  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7493] Re: Spirit of fellow Hams.  
Message-ID: <3525049B.558D@qsl.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Yes I know I can build one. And with PC board shielding, it would match all my other homebrew projects! Really.

I have the attenuator networks and resistor values on my web page, they've been there over a year.

But I thought I'd try the trade before I built it. So many projects going on I am trying to not add another.

Thanks for the suggestions.

-Ed

--

72, Ed, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR  
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)



-----  
Date: Fri, 3 Apr 1998 09:57:40 -0600 (CST)  
From: William Wyatt <wbw95k@timon.acu.edu>  
To: Dave Sjolin <sjolin@swbell.net>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7494] Re: Radio Shack Frequency Counter  
Message-ID: <Pine.BSI.3.95.980403095644.13433A-1000000@timon.acu.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Does anyone know if this freq. counter accepts direct entry or if it is only a field type frequency grabber. Thanks for the help.

|     | |     | wbw95k@timon.acu.edu  
|     | |     | William Wyatt  
| /\ | | /\ | KC5ZGH <--Tech Plus // QRP-L member #1339  
|/ \ | | / \ | 1 Corinthians 13:13  
<http://timon.acu.edu/~wbw95k>  
--\*\*\* \*\*-- -\*\* \* -\* -\*- \*\*\*\*\* --\*\* --\* \*\*\*\*

-----  
Date: Fri, 3 Apr 1998 11:58:23 -0500 (EST)  
From: "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>  
To: qrp-l <qrp-l@Lehigh.EDU>  
Subject: [7495] Dayton QRP banquet reservations top 140!  
Message-ID: <Pine.LNX.3.95.980403115422.4550D-1000000@w3eax.umd.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

ONLY 41 Days until FDIM, and 42 days until the QRP Banquet @ Dayton!

It's \$22/person, for those of you who do banquets, and this one will be a banquet to remember:

Lots of door prizes  
Gobs and gobs of buffet food  
Ade Weiss as "most honored speaker"

plus whatever announcements we come up with.

Scott Rosenfeld NF3I  
4015 Sparrow House Lane  
Burtonsville, MD 20866-1333

is where you send checks (MADE OUT TO QRP ARCI, NOT TO ME)

SASE requested if you'd like a return of your ticket, else I can hold it for you.

I'll be posting an attendees list soon.

Food and fun and prizes for all!

\* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 \*  
\* 6m 82 grids on 8w \* DXCC WAS WAC \* QRP-L #147 \* QRP ARCI #9054 \*  
\* <http://w3eax.umd.edu/~ham> \* ARRL Life Member /Laurel ARC/UMARA \*  
\*\*\* 301-549-1022 h 301-982-1015 w \*\*\* 35 wpm HF mobile CW Neon \*\*\*

-----  
Date: Fri, 3 Apr 1998 11:20:46 -0500 (EST)  
From: Rich Mulvey <mulveyr@mulveyr.roc.servtech.com>  
To: wbw95k@timon.acu.edu  
Cc: qrp-l@Lehigh.EDU  
Subject: [7496] Re: Radio Shack Frequency Counter  
Message-ID: <199804031620.LAA21806@ll.aa2ys.ampr.org>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=US-ASCII  
Content-Transfer-Encoding: 7bit

> Does anyone know if this freq. counter accepts direct entry or if it is  
> only a field type frequency grabber. Thanks for the help.

It's simply a "sniffer" type counter. The new version has three ranges:  
A TTL-level mode for up to 10Mhz ( with a high-Z probe ), and then ranges  
for up to ~30Mhz, and up to ~1.3Ghz. ( More or less ).

I have one, and it's reasonably sensitive for the cost. It won't replace  
a bench counter, but for quick-and-dirty troubleshooting, it's fine.

- Rich

-----  
Date: Fri, 03 Apr 1998 09:35:48 -0700  
From: Andy Fox <foxes@theriver.com>

To: adams@chuck.dallas.sgi.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7497] Re: Elemer101: Schematic in PDF format  
Message-ID: <35250FE4.24A1E7D7@theriver.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Chuck,

Thanks for posting the PDF version of the schematic. I just printed it out, and it appears to look as good as the postscript version. Hmm, I'll bet the folks at Adobe know a few things about both formats... ;-)

Anybody who has had trouble with the postscript file really ought to check this one out; it's painless and beautiful. Fast, too.

--

72/73 de Andy, KK7HV - QRP-L #1286 - Benson, AZ

-----  
Date: Fri, 03 Apr 1998 09:28:11 -0700  
From: Ken Knecht <kenk@primenet.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7498] Slowing bug down  
Message-ID: <3.0.5.32.19980403092811.007c1b40@pop.primenet.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Just a note to thank all of you for the many excellent suggestions on how to slow my rampaging bug down.

Ken

-----  
Date: Fri, 3 Apr 1998 11:51:33 -0500  
From: "Watson R Gabriel Jr" <wgabriel@duke-energy.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7499] K1EL Keyer Info  
Message-ID: <852565DB.005C1D5F.00@dpcmail.dukepower.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII

Someone posted a note about getting the K8 keyer IC's but somehow I deleted it before replying directly so I thought I would answer here. Sorry for the BW.

Steve does this as a part-time business like many others. Also, each PIC is programmed specifically for the user with preferred call and the memory message types you specified ("regular", DX, contest, etc). I also happened to catch him one time that due to demand he had run out of PICs and his distributor was backordered too. So this took a bit more time than usual to get mine shipped. Some of this may be the cause of the delay you have seen if it seems longer than you would normally expect.

Hope this helps. Watson/WB4EXW

-----  
Date: Fri, 3 Apr 1998 09:11:45 -0800  
From: Russ Carpenter <russ@natworld.com>  
To: "QRP-L List" <qrp-l@Lehigh.EDU>  
Subject: [7500] Second Announcement for the APRIL SPARTAN SPRINT  
Message-ID: <199804031713.JAA03637@guppy.pond.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"

The April Spartan Sprint will be held on April 6 (which is our standard date--the first monday of the month). We will be operating on two bands--40 and 20. Don't worry if your station is a bit obese. We commend the winners in two categories--points (the Tubby Division), and points per pound (the Skinny Division).

If you are a newcomer to the Sprints, take a look at the introductory material at the end of this post.

1. Start at 9:00 PM EDT, 8:00 CDT, 7:00 MDT and 6:00 PDT. Finish at 11:00 PM EDT, 10:00 CDT, 9:00 MDT and 8:00 PDT.
2. The frequencies will be 7040+- KHz and 14060 KHz+- . (You may operate one or two bands--your choice.)
3. Exchange RST, SPC (state, province or country) and power output.

4. If you choose to call CQ, use the format "CQ SP".

5. You can take credit for working the same station on a second band.

After the contest, send Russ Carpenter, AA7QU, an e-mail with your total QSOs and the total weight of your station (i.e., the combined weight of the transmitter, receiver, key, keyer and battery). You may also include your comments from the soapbox. Russ' email address is russ@natworld.com.

As an alternative, we encourage you to use our automated Spartan Sprint report at the ARS web site. Just fill in a few boxes, click the "submit" button, and you're done! You can get directly to the report page with this URL: [http://www.natworld.com/ars/events/spartan/submit\\_spartan.html](http://www.natworld.com/ars/events/spartan/submit_spartan.html). Or you can take a more leisurely (and rewarding) stroll through the ARS site by going to the home page at <http://www.natworld.com/ars>.

\*\*\*\*\*

The Spartan Sprint is based on a simple but stimulating concept. We are encouraging all of you to cobble together the kind of station you'd use in a portable environment--lightweight transceiver, keyer, key, and battery. Then put that turkey on the air, and participate in a two hour sprint.

All operators are invited to play, whether or not they are members of Adventure Radio Society. Even if you don't have lightweight equipment, your participation will be rewarding, both for you and the other participants. We'll report the score in two different formats--absolute scores, and points per pound of station weight. So you can get your kicks from running up a magnificent score, or achieving an remarkable ratio of points per pound.

If you're thinking about becoming a member of Adventure Radio Society, just send Richard Fisher (our membership chairman) an e-mail expressing your interest. Richard's e-mail address is nu6SN@aol.com. Membership is free, and the organization has a great group of men and women who combine their love of ham radio with their affection for the outdoors. You don't need to be a macho person; ARS welcomes people of all ages and levels of ability.

Russ Carpenter, AA7QU, Contest Manager

russ@natworld.com

-----  
Date: Fri, 3 Apr 1998 10:14:03 -0700  
From: gsurrency@juno.com (Gary L Surrency)  
To: qrp-l@Lehigh.EDU  
Subject: [7501] Elmer101 Schizo-matic  
Message-ID: <19980403.101403.12438.0.gsurrency@juno.com>

Gang,

The .pdf file version of the Elmer101 schematic may print much mo' better on your printer if you have Adobe Acrobat reader, which is free for downloading from many websites.

In my case, the pdf file came out much clearer and easy to read than the jpg and gif formats. Those formats had tiny specs of ink over the entire page, and the line clarity was not nearly as good as the pdf version. Try printing the pdf file if you haven't already.

I would like to take this opportunity to thank Chuck, K5FO for putting all of this great info up on his web page, including the wonderful photos.

72,

Gary Surrency AB7MY  
S&S TAC-1(40&80m) ARK30 38S OHR100 w/KC-2 HW-9 TS-570D  
QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH

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You don't need to buy Internet access to use free Internet e-mail.  
Get completely free e-mail from Juno at <http://www.juno.com>  
Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Fri, 03 Apr 1998 09:12:17 -0800  
From: Steve Miller <kg7pv@teleport.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7502] RE: Antenna Parts  
Message-ID: <3.0.5.32.19980403091217.007b9750@mail.teleport.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>Looking to build antennas but have no idea where to get stainless steel  
>parts  
>like pulleys, U-bolts, element-to-boom, boom-to-mast, etc. Any pointers to  
>where to purchase these items would be appreciated. I currently have,  
>ready to mount,  
> a Two-element 10 meter Moxon beam, as described in L. B. Cebik's web page.

Any good marine store that sells parts for sailboats will have all the stainless hardware you could ever want. You will pay for it, of course, but browsing through such stores is worth it. 73

Steve Miller kg7pv@teleport.com Portland, OR  
Norcal #308 QRP-L #109 ARCI #9230

-----  
Date: Fri, 03 Apr 1998 12:48:51  
From: Steven Weber <kd1jv@moose.ncia.net>  
To: qrp-l@Lehigh.EDU  
Subject: [7503] 15M 2N2er  
Message-ID: <3.0.3.16.19980403124851.2c1f4830@mailhost.ncia.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Since 15 M is starting to show signs of life, I decided to try and make a 15 meter 2N2er (actually a 3904er)

I started out simple, as I had hoped to fit it in an Altods tin, but the DC Rx didn't work very well. Then I tried a DC with a converter in front of it, and it worked better, but still not very well. Finally, I built a super het and this shows good potential.

The IF is 15.570 Mhz (xtals from cordless phones) VFO is 5.43 Mhz. The main problem is the image is in the 31M SWB band and there are a couple of birdies. Sounds like it needs better image rejection and an RF pre amp. I did hear some DX with it this morning though, a DJ6.

Now to build up the transmitter portion.

72,  
Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

-----  
Date: Fri, 03 Apr 1998 11:47:21  
From: Steven Weber <kd1jv@moose.ncia.net>  
To: qrp-1@Lehigh.EDU  
Subject: [7504] Re: RS Frequency Counter Wanted  
Message-ID: <3.0.3.16.19980403114721.22cfebd8@mailhost.ncia.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>The he told me that the FCC made them stop making them but let them get  
>rid of the ones they had. I asked him why and he said that they would do  
>illegal things. I asked what illegal things and he said that they would  
>"get" cell phones and were being used to clone cell phones. And that  
>that was why the FCC made them get rid of all they had!!  
>

This sounds like a line of bull to me. To clone a cell phone, you need to  
decode the information the phone is transmitting, like it's ID number and  
such. A simple Freq counter might show the channel the phone is on, but  
that alone is not enough to "clone" a phone.

Maybe the guy thought the counter was a scanner?

Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

-----  
Date: Fri, 03 Apr 1998 11:53:23 -0600  
From: "Gary R. Hanson" <ghanson@uts.cc.utexas.edu>  
To: qrp-1@Lehigh.EDU  
Subject: [7505] 2N2222 Design, & O-scope and Frequency Counter  
Message-ID: <352521F5.49F5@uts.cc.utexas.edu>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hey gang,

Once I got into the NorCal 2N2222 design stuff I realized I wasn't going  
to get very far into designing crystal ladder filters without a good  
frequency counter and O-scope. So I sold one of my kids (just kidding)



and made two of the best investments of my life.

I don't get royalties from either group just a very satisfied customer.

I took a leap of faith and ordered that \$250 20 Mhz oscilloscope from TechAmerica. I called and they were out. [grumble, grumble], but they said they would ship within the next two weeks. Four days later it was on my doorstep [rah, rah]. BUT, the CR-tube was dead [bah, humbug]. I sent it back to their customer service unit and they promised to replace it, but they were again sold out and they wouldn't fill until mid April [bah humbug, again]. Yesterday (April 2), the replacement arrived and it works great. Got to look at my 2N2222 VFO signals for the first time and what a thrill to see an 'ugly bug' constructed VFO with a "purty" sine wave showing up. Clean and about 5V peak-to-peak coming out of a two stage buffer/amp. I'll play with it some more this weekend and let you know, but I am one happy/satisfied customer. TechAmerica handled the defective unit with speed and effecency with no questions asked. Super service in my book.

My second investment was to order the DFD4 from AADE [got it off the Norcal web page.] If you want a desktop frequency counter that will measure up to 2 GigaHertz with sampling down to one Hz at the "slow" rate and 100Hz at the "fast" rate -- that's right 1 Hz in counter that only costs \$59 -- then this is the one for you. It sure works great for me.

It takes about an hour + if you are a slow, fumble-fingered constructor like me. Did I mention it has a frequency off-set feature if you want to offset your receiver IF and use it as a digital display for your QRP rigs? Does that too. I'm using it as a bench top counter. Good quality parts, easy instructions and it fired up the first time. Hint: you do have to get the contrast setting adjusted the right way to see the results on the LCD screen :-). My VFO really is pretty stable! Helps to be able to measure down to the 1Hz level.

Now, I can get back to the 2N2222 design stuff and finish up the rig, hopefully in time to send it in for the contest in Dayton. Having a ball and learnin' lots.

Gary, KJ5VW

-----  
Date: Fri, 03 Apr 1998 09:50:48 -0800  
From: Bob Bayha <rbayha@ix.netcom.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [7506] Re: Elmer101 Schizo-matic

Message-ID: <35252177.4B44F241@ix.netcom.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

I agree. The Elmer 101 .pdf file printed using Adobe Acrobat IS the way to go, IMHO. Nice output and no hassle!

Bob, K6RKB

Gary L Surrency wrote:

> Gang,

>

> The .pdf file version of the Elmer101 schematic may print much mo' better  
> on your printer if you have Adobe Acrobat reader, which is free for  
> downloading from many websites.

-----  
Date: Fri, 3 Apr 1998 10:57:55 -0700

From: mcveyp@kingman.com

To: qrp-l@Lehigh.EDU

Subject: [7507] 12.6 uH inductor

Message-ID: <199804031757.KAA03392@kingserv.kingman.com>

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Hello, I just want to say, "muchas gracias" to the helpful qrp-l members and especially Glen from Canada for the elmering. I am assembling a 40m qrp xcvr from A&A Engineering. I am building it as a 40m and not the 20m kit. A&A doesn't stock the parts anymore because they discontinued the kit. Between Dan's Small Parts & Mouser, I've found the other parts. Can anyone help me find a 12.6 uH inductor? It must be 10mm to fit the pre-drilled PCB.

Patrick McVey, KC7AIR, mcveyp@kingman.com, Kingman, Arizona

-----  
Date: Fri, 03 Apr 1998 17:57:56 +0000

From: Walt Amos <waltk8cv@ameritech.net>

To: Qrp-l List <qrp-l@Lehigh.EDU>

Subject: [7508] Great sell off.....

Message-ID: <35251514.AAD9016F@ameritech.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

In the spirit of Ed Loranger, " don't buy, build or was that buy don't build " oh well!

The following for sale.....

TenTec SCOUT 555 alone \$450 and one band module! excellent shape!

8 band modules @ \$20 each..... = \$160 ( will sell only after scout gone )

mobile bracket.....\$10

TenTec switching power supply 10 amps.....\$40

TenTec mike.....\$15

All of the above package deal..... \$595

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KENWOOD TS-50 with kenwood 500 hz internal filter and mike with power cord. \$695

Pristine and like new.

-----  
---

INDEX NEW QRP PLUS ( qrp ++ ) and MFJ mini mike. excellent.....  
\$450

-----  
---

Will split shipping on all above. Rigs MUST go before I will sell other stuff.

Thanks

Walt k8cv      waltk8cv@ameritech.net      1-248-549-1846

-----

Date: Fri, 3 Apr 1998 11:47:21 -0600  
From: "Marshall Emm" <mgemm@mtechnologies.com>  
To: qrp-1@Lehigh.EDU, cqrc@mtechnologies.com  
Subject: [7509] Ten-tec Model 1254 Receiver Kit  
Message-ID: <199804031848.LAA21410@edison.chisp.net>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7BIT

I've finished the receiver kit and thought I'd make a couple comments here for the benefit of anyone who is building or considering building this kit.

First, let me say it is a GREAT kit and a good general coverage receiver. Tech support (if you need it) is excellent, and in terms of value for money there isn't much to compete with it.

I do have two concerns though. Ten-tec is responsive to users' concerns so please drop them a note ( sales@tentech.com ) if you agree with these and feel it's appropriate to do so.

Both of these have to do with Ten-Tec's stated objective which that the 1254 is an SWL receiver, not a "communications receiver." One of these problems has a fairly easy fix; the other doesn't.

1. The VFO stepping rate is either 5Khz (in AM mode) or 2.5 (Khz), and a "clarifier" or RIT covers the gap between steps. You discover very quickly that the 2.5KHz tuning is too big a jump. A 1KHz step would be much better (also for CW) but would require a change in the program. The PIC chip is socketed, so a mod should be possible without too much difficulty but Ten-Tec won't do it just for me [g]. Also they could use a jumper (as they do in some of their transceiver kits) to provide optional stepping rate(s).

2. The internal noise, primarily from the display multiplexing, is bad. So bad that they tell you to use a coax fed antenna, at least fifteen feet away from the receiver. The antenna line carries dc voltage for an active antenna (e.g. theirs) but again it must be 15' away from the receiver. This seems to me to be a bit counter to the SWL receiver philosophy-- we are used to just attaching any old hunk of plain wire as a worst case antenna. It also seems to me that it should be possible to provide adequate shielding and bypassing, and again that should be suggested to Ten-Tec. If any of you have incorporated any mods along that line, please let me know.

It's doing the job it was intended for quite nicely-- sitting here in the office monitoring for HF openings.

73

Marshall Emm  
N1FN/VK5FN  
n1fn@mtechnologies.com  
Milestone Technologies  
Software, kits, tools...  
<http://www.mtechnologies.com>  
(303)752-3382  
--

-----  
Date: Fri, 3 Apr 1998 13:46:53 EST5EDT  
From: "McFly" <joseph.street@comdev.ca>  
To: qrp-l@Lehigh.EDU  
Subject: [7510] Small Wonder 30-40  
Message-ID: <16449742C6C@mercury.camb.comdev.ca>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7BIT

I just finished the 30 meter version of this great little rig and noticed that the choke on the output transistor L4 gets very warm on key down. This is a 7 uH 4 turn on a ft37-43 core. Did anyone else notice this phenomenon and is it a problem? The choke is wound with a heavy (22 i think) guage wire so wire loss is not an issue, but could the heating due to core losses indicate that there is a loss of efficiency here? The entire supply current is 240 mA from 12 volts for 1.5 watts output, and I havent measured how much of that is going to the final, but its no doubt the lion's share. Amidons formula for calculating flux density is meant for transformer applications and I'm not sure how to calculate it for this case as a choke on a class C final. can anyone shed some light on this issue?

Joseph Street VE3UXE  
Nonham to advanced +12 wpm in one hour.

-----  
Date: Fri, 3 Apr 1998 10:55:07 -0800  
From: dave\_epps@juno.com  
To: qrp-l@Lehigh.EDU  
Subject: [7511] AADE

Message-ID: <19980403.105508.12214.1.dave\_epps@juno.com>

Just saw post on AADE (listed on Norcal webpage). I couldn't find it.  
Help pls.

dave ab5pc fresno, ca.

-----  
You don't need to buy Internet access to use free Internet e-mail.  
Get completely free e-mail from Juno at <http://www.juno.com>  
Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Fri, 3 Apr 1998 11:58:07 -0700  
From: "James R. Duffey" <jr3m@maxwell.com>  
To: qrp-l@Lehigh.EDU  
Subject: [7512] End fed half waves  
Message-ID: <v0300780eb14ae1afc179@[192.31.66.158]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Joe - Thanks for including me in your reply to Dana. I had not seen your  
reply when I posted as I receive the digest.

I agree with you in your comments on end fed antennas, either a half wave  
or multiple of a half wave long. I think they are an underrated antenna.

A wire 135 feet or so long is almost a multiple of half wavelengths for  
nearly all bands from 80 M up and deserves to be used more.

My lot favors center fed antennas as I am in the middle of it, and my shack  
is not located easily for end fed wires. Otherwise I would have tried them  
long ago. I have toyed with the idea of remote tuning an end fed wire, but  
it seems to lose its attractiveness when compared with the relative  
simplicity of center fed antennas here.

I see two problems with the end fed; getting it into and out of the shack,  
and managing the RF in the shack. Locating the tuner at the window solves  
the first, and the second is easily handled with a counterpoise, the first  
is easier at QRP, but still can be trying.

Thanks for your comments. - Duffey KK6MC/5

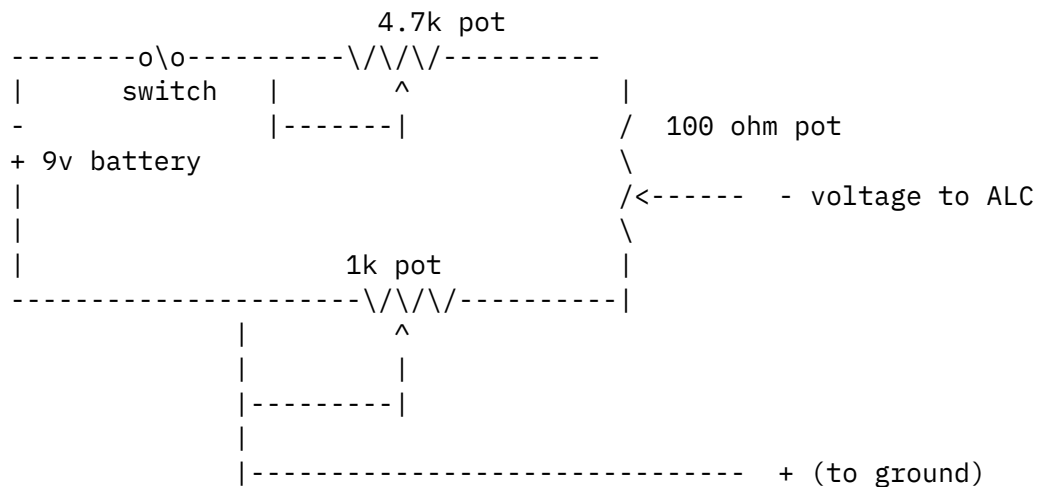
James R. Duffey      KK6MC/5   DM65   <jamesd1@flash.net>  
30 Casa Loma Road  
Cedar Crest NM 87008

Date: Fri, 03 Apr 1998 13:14:11 -0600  
From: Tim Ahrens <tahrens@inetport.com>  
To: dave\_epps@juno.com, qrp-l@Lehigh.EDU  
Subject: [7513] Re: qrp with 706  
Message-ID: <35253503.3C4DD115@inetport.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi Dave - I'm gonna use the circuit that Bob (n4bp) has on his web page: Here it is.

<http://wg104a.wh.uni-stuttgart.de/~n4bp>

Oh, oh, I noticed that you are on junos.. here's a crummy w5fn drawing:



Here's his input:

Alternately adjust the 4.7k pot and 1k pot to set limits. Be sure to turn off switch when not in use.

I haven't tried it yet, but will try this weekend.

good luck!!

CU

Tim W5FN

-----  
Date: Fri, 03 Apr 1998 14:16:36 -0500 (EST)  
From: jeverhar@camden.lmco.com  
To: qrp-1@Lehigh.EDU  
Subject: [7514] Re: Coax for End fed Antenna?  
Message-ID: <9804031916.AA05751@train11.CAMDEN.LMCO.COM>

Gang,

Hmmmm, I somehow forgot to "cc" the qrp-1 gang on this message:

----- Begin Included Message -----

Hi Dana,

I won't comment on the choice of coax, others have done enough of that!

However I am the guy who came up with the Rainbow Tuner and I want to give you a few thoughts about your installation.

1. The Rainbow tuner (as you may already know) is intended for use with a half-wave end-fed wire on either 30 or 40 meters. Taht is, the wire length should be a half wavelength on the band of use, about 67 feet for 40 meters and 46 feet for 30. It is not a general purpose tuner for use on multiple bands with a random length wire.
2. It does require adjustment with the antenna in place however it will probably not require frequent readjustment unless the tuner is moved or the antenna changes somehow. Over time it may need retweaking since the tuner peaks sharply.
3. You will need some sort of ground. A quarter wave radial is ideal, but a simple ground rod will suffice since the antenna's high impedance overshadows ground resistance.
4. The half wave dipole is probably the "cleanest" type of installation for a single band antenna, but is often impractical if one's shack is not centrally located between two suitable supports. If erected carefully, the end-fed half-wave gives comparable results. One potential disadvantage of bringing the



wire into or near a structure may be increased electrical noise pickup from nearby tv sets or electrical wiring. With a center fed dipole, the antenna is usually farther from noise sources.

4. With a half-wave wire, the signal is radiated primarily from the high-current part of the antenna which is in the center. For best results this part of the wire should be high and clear from surrounding objects.

My current home antenna is, indeed a 67 foot end-fed wire. The wire is configured as an inverted vee with the center at about 20 feet, the far end about 8 feet above ground and the near end approximately 4 to 5 feet high. I bring it into my house through a window along with a six foot wire that goes to a ground rod installed just below the window.

The Rainbow tunes it up well on 40 meters. (And 20, also with a trick that I will share if you are interested). The Rainbow sits on a windowsill with coax going across the room to my QRP rig. Once tuned, the system stays tuned for months. However when the tuner is removed so that the window can be opened, I need to touch up the tuning when it is put back.

I have also used a center fed dipole on the same support (with the end-fed wire removed) and the operating results are basically identical. On the other hand a 40 meter dipole only up 20 feet is not a dx antenna! Higher would definitely be better. The primary difference between the center fed and end fed antennas is increased receive noise with the latter. :-(

If I had my druthers, I would use a dipole for a fixed installation. However the end-fed wire is more practical for me due to location of available supports, the ease of not having to bring coax through the window and multiband use if I use a different tuner.

BTW the upcoming issue of QRPp will have an end-fed half-wave antenna article that I wrote.

I actually prefer the dipole however it is less practical

Hope you find this of interest.

72/73,

Joe E., N2CX

----- End Included Message -----

-----  
Date: Fri, 03 Apr 1998 12:39:08 -0700  
From: Brian Chesire <BCChesire@worldnet.att.net>  
To: maney@ridgefield-ct.com  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [7515] Re: soldering gun?  
Message-ID: <35253ADC.7F5E@worldnet.att.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Ref: Soldering gun lights.

All my various guns over the years have used the #222, prefocus bulb, except for a strange WEN gun. I used to buy them at the hardware store, they are replacements for the old two cell penlights. They did not last very long at all. Then I found that my local electronics emporium carried them in a box 12 or so and at about half the hardware store price. They were made by Chicago Lamp, and best of all lasted almost forever.

73's

Brian WA5PP0  
Tucson, AZ

-----  
Date: Fri, 3 Apr 1998 11:49:30 -0800 (PST)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: qrp-1@Lehigh.EDU  
Subject: [7516] CCD Antennae  
Message-ID: <Pine.LNX.3.96.980403114337.14684A-100000@topaz.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

I was pondering...

Would it be practical to use a CCD antenna for QRP work? By distributing the current over the entire length of the antenna wire, however, long it may be, you should be able to achieve better transmission and/or reception. My idea was to build an antenna, using essentially a random length of wire, that fits inside my apartment ("no antenna" restriction, of course). Make it as long as possible. However, since a quarter wavelength doesn't fit in my apartment, much less a half-wave length, the impedance of the antenna will be quite low. So, I planned on terminating the antenna with a resistor, such that  $R_t = 50 - R_r$ , where  $R_r$  is the

radiation resistance. Note that reactive components are nulled out due to the capacitors across the length of the antenna.

Comments? Suggestions?

NOTE: Yes, I know that transmission and receptive power will be small for anything less than 1/4 wave. :)  $P = I \cdot I \cdot R_r$

I got the idea as a combination of reading about the CCD antenna on the web, and the equations I got from LWCA (??) about a year ago on computing antenna radiative efficiency.

```
=====
      KC5TJA/6      |      -| TEAM DOLPHIN |-
      DM13          |      Samuel A. Falvo II
      QRP-L #1447   |      Chief Architect and Project Founder
=====
```

-----  
Date: Fri, 3 Apr 1998 12:14:47 -0800  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: <qrp-l@Lehigh.EDU>  
Subject: [7517] Antenna Mod for Alinco DJ-S11/41T Transceiver  
Message-ID: <01bd5f3d\$26a911a0\$630a0d0a@doug.dpol.k12.ca.us>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Guys, last year at Dayton Jim Cates found the neatest 2 meter hand held that I have ever seen and cheap too. The price that we paid was \$119, but you can buy them now from HRO for \$88. But the problem was the crummy antenna system that they had.

Andy Fu, AC6GN, has a web page and a mod that you absolutely have to look at if you have one of these rigs. Here is the URL  
<http://hamradio.mail1.com/alinco/> Note that I am not affiliated with Andy in any way, I am just passing the information on. He has done an outstanding job of putting this on the web, and I think that you will be interested in it if you have the little Alinco radios.

Once again, the talent that is out there truly amazes me. Have a good weekend. 72, Doug, KI6DS/M0BIV.

-----  
Date: Fri, 3 Apr 1998 15:12:27 -0500  
From: Mel Evans <MelEvansGM6JAG@compuserve.com>  
To: qrp-1 <qrp-1@Lehigh.EDU>  
Subject: [7518] Think before you <quote  
Message-ID: <199804031512\_MC2-38D6-707B@compuserve.com>  
MIME-Version: 1.0  
Content-Transfer-Encoding: quoted-printable  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Disposition: inline

Hi guys,

Regular monthly moan OBO the digesters!

Please, please, please please guys, think before you quote entire messages verbatim simply to answer a query. The recipient of the answer knows what=

he asked you, and if the rest of us can't guess, we can go to the list archives to look it up if it's really important.

The percentage is creeping up again----I like to think it's because new guys are joining the list every day, and not appreciating that quite a fe=

w  
people take the list in digest form (complete with all messages) and are not able to hit a delete button to cancel one or more messages out of the=

list.

To be honest, I don't object to "test" messages in the least, they take u=  
p  
a lot less space than do the unnecessary repeat of a complete A4 size pag=  
e  
just to add "I agree, and RS can supply coffee at \$1.50 here".

Flame me if you like, I'm Scottish! ( somebody has to be!)

72 and 73 de Mel  
EDINBURGH, Scotland UK  
Home of the last HW9

-----  
Date: Fri, 03 Apr 1998 13:23:24 -0700  
From: John Evans - N0HJ <jaevans@codenet.net>

To: qrp-1@Lehigh.EDU  
Subject: [7519] Re: Think before you <quote  
Message-ID: <3525453C.F86A9CB5@codenet.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Me1 Evans wrote:

```
>  
> Hi guys,  
>  
> Regular monthly moan OBO the digesters!  
>  
> Please,please,please please guys, think before you quote entire messages  
> verbatim simply to answer a query.
```

And don't even quote virus hoaxes !!!!!

john - the other evans - n0hj

John A. Evans	Chief Systems Administrator
Office: (719) 528-1800 x164	Titan Software Systems
Fax: (719) 528-1888	1115 Elkton Drive, Suite 200
email: <a href="mailto:jaevans@cos.cst.titan.com">jaevans@cos.cst.titan.com</a>	Colorado Springs, CO 80907-3535

Norcal #262 QRP-L #219 QRP-ARCI #8303 NE-QRP #213 CQC #045  
CQrp #15 NJ-QRP #50 AK-QRP #52 NW-QRP #454 FISTS #3184  
Personal Web Page: <http://www.geocities.com/capecanaveral/9773/>

Date: Fri, 3 Apr 1998 11:33:30 -0900  
From: Bruce Hopkins - KL7JAF <kl7jaf@eagle.ptialaska.net>  
To: qrp-l@Lehigh.EDU  
Subject: [7520] 38 Special : And the winner is.....(Drum Roll.....)  
Message-ID: <v03007801b14aefcf80a7@[204.119.15.158]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hi Gang...

Fourteen names went into the hat...

After due deliberation and with great care, our African Grey, "Mrs. Higbee" refused to chose... "Gooney Bird", a Dutch Blue Love Bird, got over his initial stage fright and went about his assigned task...

And the winner is: Harvey - K5YU

I let "Gooney" select two more entries for the just in case list and will keep all names on file until the "38-Special" is winging its way to its new owner... First alternate is Lynn - KJ3V and second alternate is Jim - KW3U... Thanks to everyone that wanted in the list, I wish I had 14 kits so I could send one to all...

Regarding the rest of the gear I had for sale... The HTX-100 is sold... The ARG0-556 is sold... The 38-Special is sold...

Still remaining is the Uniden BC-700A 12 band scanner... Includes 800 Mhz... In like new condition... New \$179 will sell for \$125 OBO plus \$5 shipping...

The Alaska QRP web site is still down as of today... My new ISP hopes to have the web site as well as two of my non-working e-mail accounts back on line sometime today...  
Take care and have fun...

72 / 73 / oo's - Bruce - KL7JAF

"Alaska QRP Club" - Web Site: <http://www2.polarnet.com/~bhopkins/akqrp>

-----

Date: Fri, 3 Apr 1998 13:40:02 -0700  
From: mcveyp@kingman.com  
To: qrp-l@Lehigh.EDU  
Cc: leinwebe@mcmail.cis.mcmaster.ca  
Subject: [7521] Signal generator question  
Message-ID: <199804032040.NAA05506@kingserv.kingman.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

I read with interest the QST, April 98, "Doctor Is In" article with a crude signal generator circuit design. Could one put a 7.040 Xtal in there to send a 7.040 signal into a homebrew QRP rcvr?  
Patrick McVey, KC7AIR, mcveyp@kingman.com, Kingman, Arizona

-----  
Date: Fri, 03 Apr 1998 12:44:34 -0800  
From: W7LS <w7ls@blarg.net>  
To: qrp-1@Lehigh.EDU  
Subject: [7522] HW-8 and supply 4 sale  
Message-ID: <35254A32.272D@blarg.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi. I have a nice looking and properly working Heathkit HW-8 and matching supply for sale. I have the book for the rig (original book, too). No known mods except that there is a SO-239 antenna connector on the back. This is a welcome mod, in my book.

Hate to part with it, because it covers a much wider freq range than my other qrp stuff. 250 KHz, if I'm correct. I've checked it out and it puts out the rated power on all bands. Good sensitivity. No scratches of any size. Minor wear from limited use. \$150 and UPS, which would be about \$6 or so to most places in USA.

73 de Jim, W7LS 425-788-0779 Duvall, WA

-----  
Date: Fri, 3 Apr 1998 16:00:40 EST  
From: RangerSF5 <RangerSF5@aol.com>  
To: qrp-1@Lehigh.EDU  
Subject: [7523] Stainless Hardware  
Message-ID: <99231e3c.35254dfa@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

I live in a very Small town and the local hardware store here has just about anything you would want in stainless steel.

Cable, eye hooks, turn buckles, both the oval and flat type U clamps, nuts .bolts etc.

I think this also applies to most well stocked hardware stores

Bob

WA2HOQ

-----  
Date: Fri, 03 Apr 1998 13:30:55 -0800  
From: W7LS <w7ls@blarg.net>  
To: qrp-1@Lehigh.EDU

Subject: [7524] adding external antenna to small 2m ht's  
Message-ID: <3525550F.2304@blarg.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi. Sounds like a new thread, to me..... I have a little credit card sized Alinco 2m ht with a fixed antenna whip. There is no provision for attaching a 'real' antenna. I want the option of using a better antenna.

Here is my proposed solution: Since the end of the whip antenna, when pulled out all the way looks like a high impedance, why can't I just consider it the end of a resonant quarter wave and add another half wave onto it with a cliplead? The antenna is base loaded already to match the short whip. Would I not just get a better radiator and the same impedance as seen by the rig? The major part of the radiation would come from the middle of the additional half wave. Have I 'gone round the bend'?

73 de Jim, W7LS

-----  
Date: Fri, 3 Apr 1998 16:27:32 -0500  
From: aa5yx@juno.com (John F. Harper)  
To: qrp-1@Lehigh.EDU  
Subject: [7525] NorCal 40A Field Test  
Message-ID: <19980403.162733.11390.0.aa5yx@juno.com>

I drove up to High Point State Park in Sussex County, NJ around 8:00 this morning to field test my newly put-together 40A. In a picnic area just south of the monument, I raised an inverted V with the apex at about 20 feet and the ends 2 feet above the ground. Power came from a motorcycle battery. The antenna was fine-tuned and I made my first contact at 9:30. Several QSOs were quite long as several folks asked details about this rig. I was able to talk to anyone I heard and had no trouble at all making contact with those calling CQ. This surprised me due to the low height of the antenna. This is a great rig if someone is looking for a fun project. Here are my loggings from this morning:

QTH	His RST	My RST
Syracuse, NY	579	569
Milford, DE	589	559
Flushing, OH	579	559
Pittsburg, PA	569	539
Detroit, MI	579	569



Dearborn, MI 579 579  
Dearborn, MI/QRP 569 569

A good time was had :-)

John Harper AA5YX/2  
<http://home.att.net/~j..harper>

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Or call Juno at (800) 654-JUNO [654-5866]

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Date: Fri, 3 Apr 1998 14:24:58 -8  
From: "Dan Hogan" <dhhogan@concentric.net>  
To: navigation@roninhouse.com  
Cc: corr@ita.ci.la.ca.us, "Frank P. Grande" <capfrank@mint.net>,  
jadepro@jadeprod.com, jorr@ita.ci.la.ca.us, leach@supertool.com,  
navigation@roninhouse.com, qrp-1@Lehigh.EDU, dhickman@rockinsoftware.com  
Subject: [7526] Dan Hogan CHANGEof ADDRESS  
Message-ID: <199804032222.RAA25418@marconi.concentric.net>

All:

I am having serious connection problems with lightside.

USE THIS NEW ADDRESS:

dhhogan@concentric.net

Dan Hogan  
dhhogan@concentric.net

---

Date: Fri, 03 Apr 1998 16:43:45 -0600  
From: "Gary R. Hanson" <ghanson@uts.cc.utexas.edu>  
To: qrp-1@Lehigh.EDU  
Subject: [7527] Frequency counter  
Message-ID: <352565DC.1DD@uts.cc.utexas.edu>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Ed Tanton N4XY EMAIL: n4xy@att.net  
189 Pioneer Trail  
Marietta, GA 30068-3466 TEL: (770)579-3933 V/MBX/FAX

-----  
INTERESTS: QRP BoatAnchors Test Equipment Photography  
CW: 99.9% Mercury Paddle # 0214 QRP to 150W: 95%

~~~~~  
"Think you can, think you can't: either way you're right!" Henry Ford  
~~~~~

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End of QRP-L Digest 1049

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